



OFW Operational Concepts
briefing to
NDIA
Full Spectrum Warfare
Conference

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Objective Force Warrior - Phase II

Phase IIA - Preliminary Design

Phase IIB - Detailed Design

Phase II Duration - 25 Months

- Refine system and subsystem design through spiral development process culminating with a **detail design package and 2 TRL 5-6 prototype system of systems** for Phase III.
- Phase IIA includes a Preliminary Design Review (PDR).
- The Objective Force Warrior Technical Program Office, PEO Soldier, and TRADOC will be a part of the PDR.
- Any weight reduction and power management schemes developed that can assist Land Warrior Blocks that are currently in development, will be identified and provided to PEO Soldier.

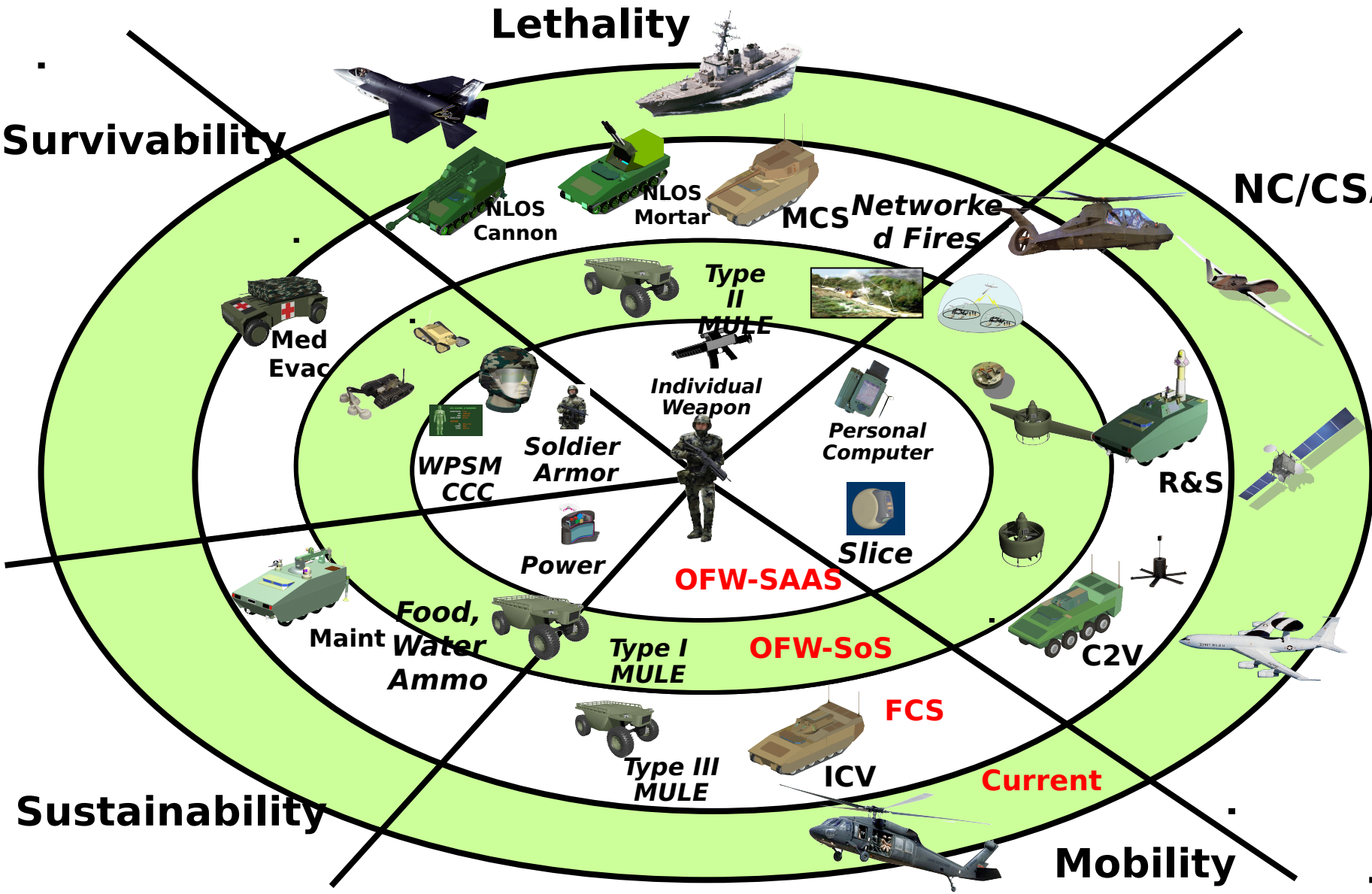
Eagle Team OFW Vision

- **Soldier-Centric** System-of-System Approach
- 10X Increase In **Combat Effectiveness**, **Area of Influence**, and Op Tempo
- Systems Fully **Integrated, Interoperable, and Interfaced** with the Unit Of Action Systems
- Formations **Fully Devolve** from UA forces
- Complete Integration and Capable of **Independent Operations** with Joint Assets
- Soldier **Sub-System Modularity** to Support Variants for all Soldiers in the Unit of Action
- Improved **Battle Management**, **Command and Control**, and **Situational Awareness** to Soldier SoS
- Enabled by Ubiquitous, **Assured Network Communications**
- **Synoptic Coverage** of Blue, Red, Gray Personnel, Systems, and Equipment in AOR
- Distributed, Forward Sensor Fusion (Warrior's Edge)
- Initial Standoff Engagements with NLOS/BLOS **Networked Precision Fires** (BLOS Mutually Supporting Fires)
- **Holistic** Approach to **Soldier Survivability** = Agility; Better, Lighter Soldier Armor; Signature Management
- Complete **Ground/Air Soldier and Organizational Tactical Mobility** (C-130; UH-60; Man-drivable)
- **Enhanced Soldier Performance and Fightability** In All Environments - 50 lb Fighting Weight Through Off-Loading to UGV
- **Synchronized Anticipatory Sustainment**
- Technologically **Fieldable**, Economically **Affordable**, and Adaptively **Trainable** Supporting Systems

Eagle Team OFW Lethality Vision

- Initial Standoff Engagements with NLOS/BLOS **Networked Precision Fires**
- Ability to Mass Organic Effects/Fires in LOS/BLOS Mutual Support
- Strike Team and Squad maneuver and movement enabled by **BLOS Mutually Supporting Fires**
 - Combined-Arms Indirect Fires Organic to Squad (60mm)
 - Technical and Tactical Fire Control at Squad Level
 - Precision BLOS Pointing of Handheld Weapons
 - Effects NCO
- **Layered** Mix of **Lethality** at **Squad Level**
 - Precision Engagement Specialist
 - M203 – Advanced Grenade Launched Munition
 - Automatic Rifleman
- **No** Weapons Squad

OFW SoS External Interactions



Strike Team - OFW's Maneuver Formation

TM



TL
E5
XM-8
EGLM

PE
EN
XM-29

AR
EN
LMG

GR
EN
XM-8
EGLM



RISS

Training Implications

- Need platform-based computer computational power for reachback and on-board storage of TMs, FMs
- Update specialty skills – ADL
- Need ET capability for weapons, robots
- Costs include:
 - Facilities
 - Training Areas/Ranges
 - Installation infrastructure
 - TADSS

Baseline capabilities:

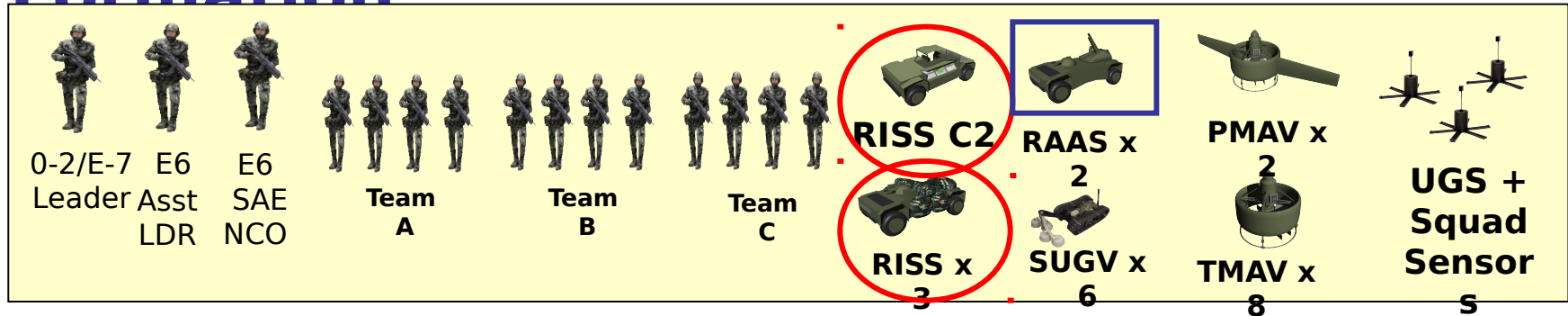
- Lowest Level Maneuver Element
- Command & Control of fire team
- Precision Engagement Specialist *
- Indirect Fire PE/Suppression
- Direct Fire Suppression
- Expanded sensor suite*
- Enhanced comms capability*
- Complementary reinforcing effects
- Provide BLOS mutual supports effects to adjacent unit
- Decentralized sensor fusion

Why 4 Men?

- Primarily Capabilities-based
- Buddy system
- Redundant IF systems
- ICV transport

Eagle Squad - OFW's Combined Arms

Formation



Baseline capabilities:

- Command & Control of multiple Strike Teams
- Dismounted C2/BM/SA tools
- Organic TTFC, networked fires capability
- Decentralized sensor fusion
- Organic SA and sensor grid management
- Organic IF capability (60/81mm mortar)
- Expanded ground and air sensor suite; employment management
- Enhanced Individual/organizational mobility
- Enhanced comms capability
- FGS Type I MULE Variant
- FGS Type II MULE
- BLOS mutual supports effects to adjacent unit
- Increased area of control and influence

Why 3 Teams?

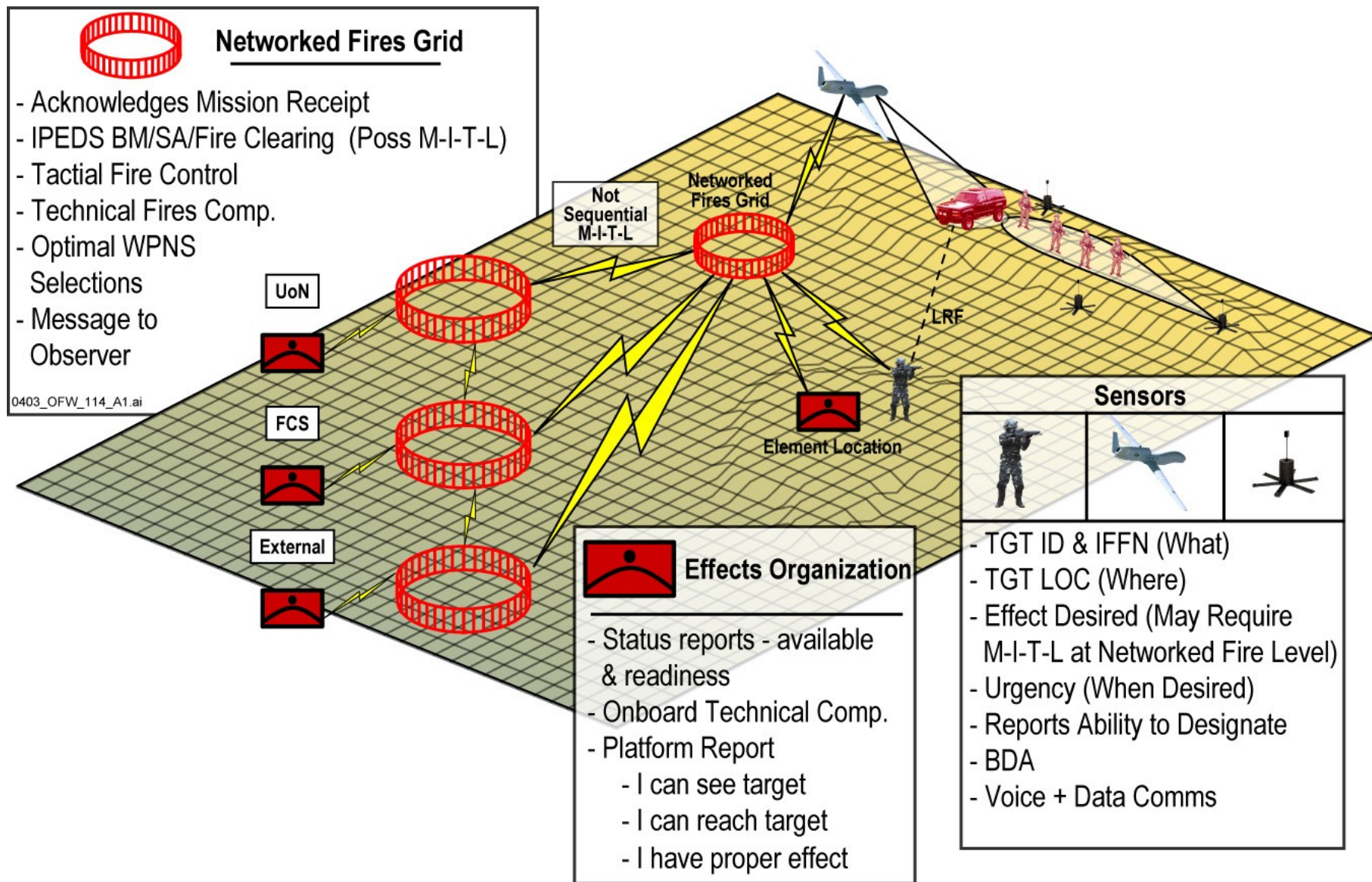
- Permits multi-directional assault
- Provides robustness to sustain loss
- 3-5 are normal span of control #s
- 4 may be needed for 24 hour ops
- # Teams are more mission, than TOE driven

Training Implications

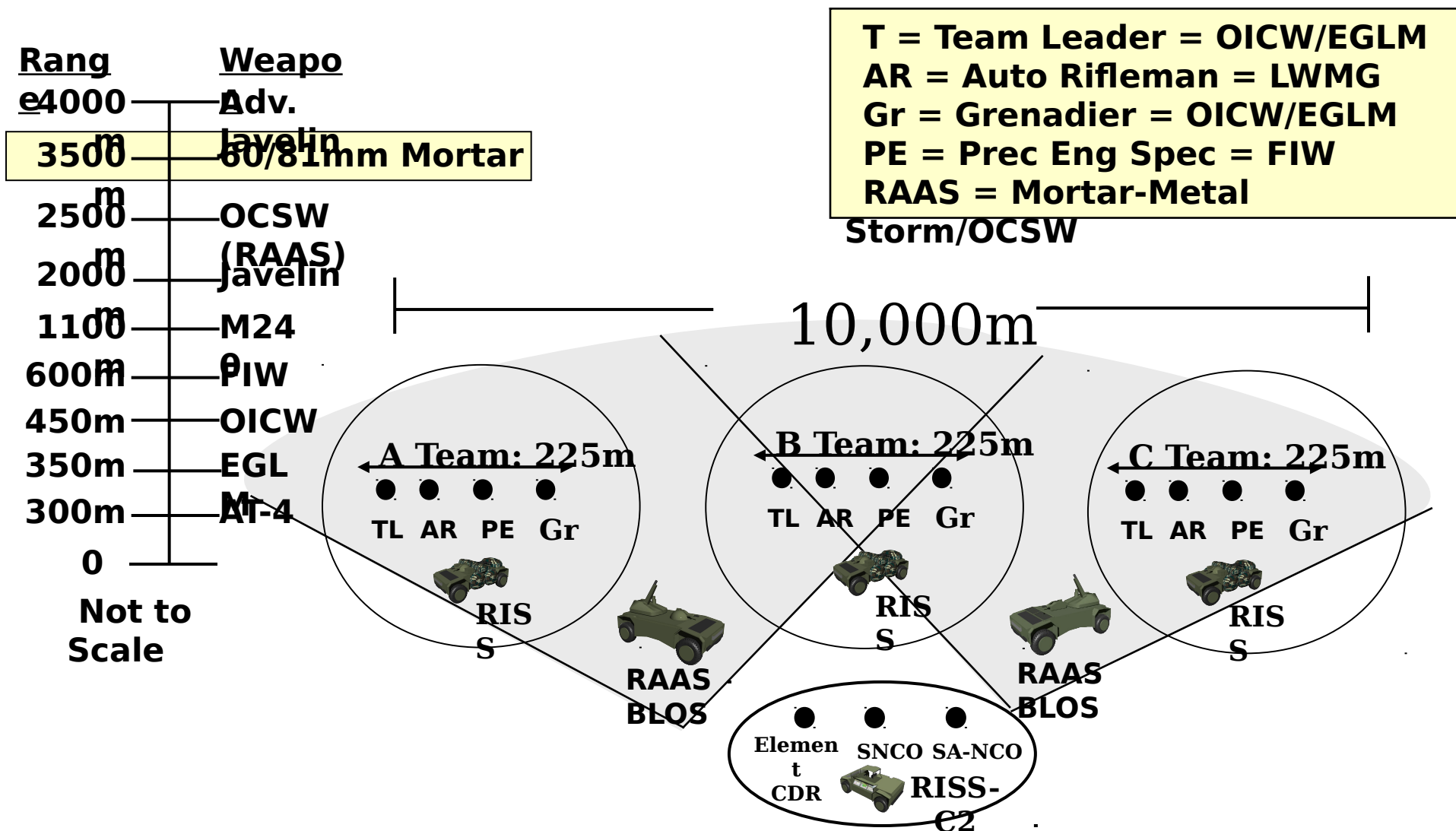
- Institutional training for combined arms at leader level
- Need for training tools for C2/BM/SA
- Need team/squad TADSS



OFW Lethality OV-1



A 10x Increase in Capability Integrated Lethality Suite



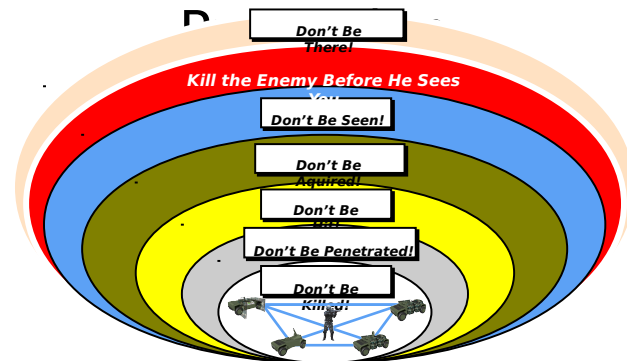
BACKUP

New & Improved Capabilities (FA Concepts)

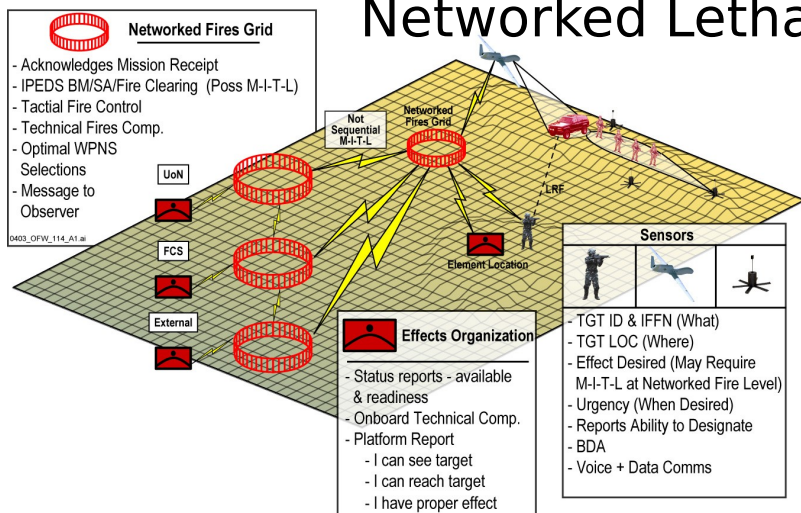
Local Sensor Fusion



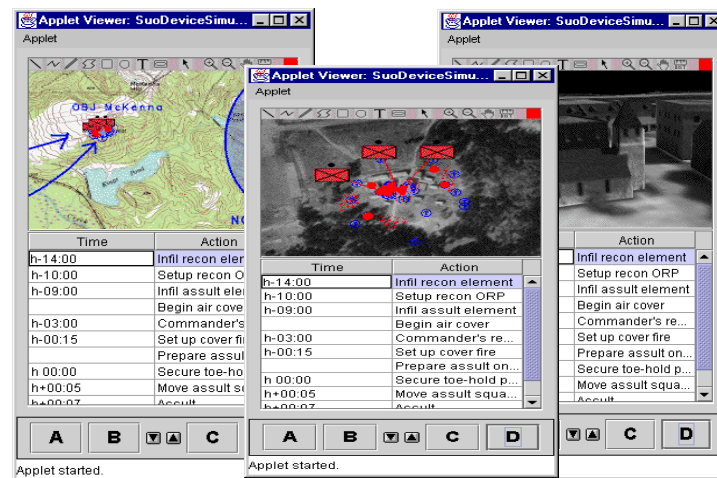
Enhanced Personal



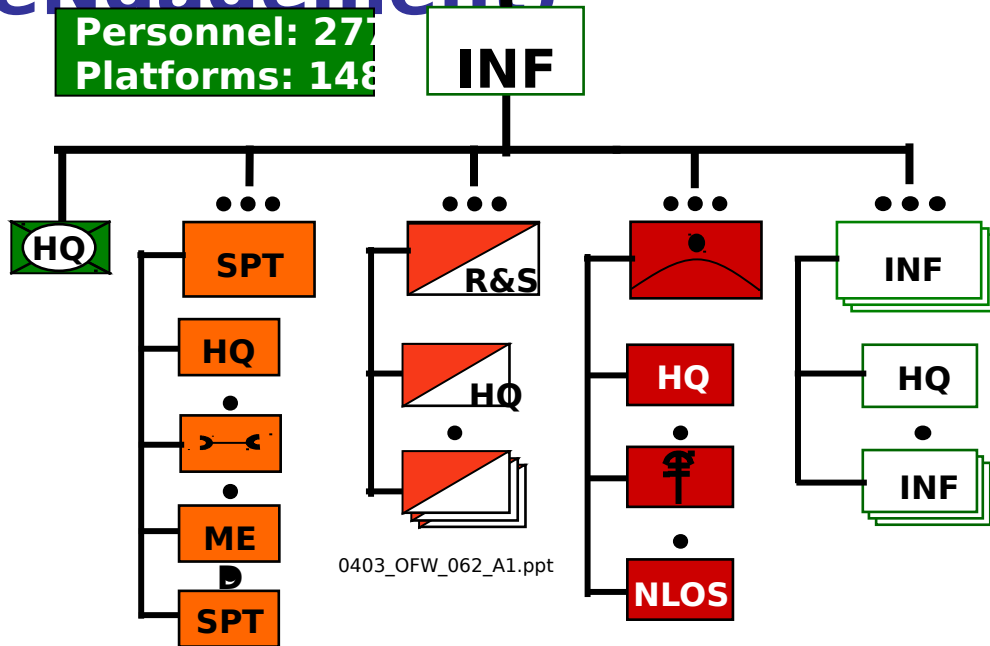
Squad-Level Networked Lethality



C2/BM/SA



OFW Company Task Force (Unit of eManagement)



UoN

- Maint. Contact Teams
- Push Log to Squads
- 15 R&S Sections
 - Adv sensors; comms
 - MCM Kits
- Complete Effects Suite
 - AAAD
 - NLOS Mortar; MIB

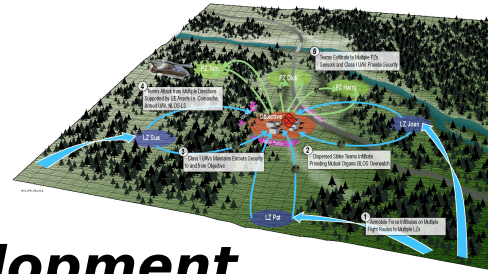
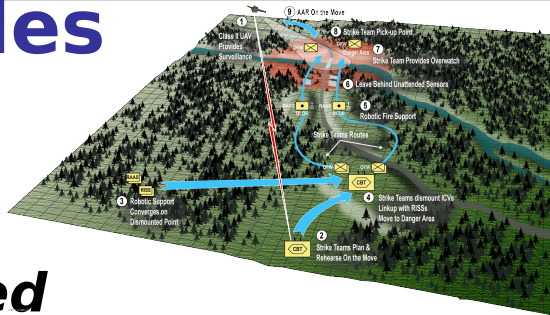
Design Concept

- Developed for operations independent of FCS - fights as a member of Joint Force
- Operate in complex, close or mixed terrain capable
- Entirely C130J, UH-60 transportable, man-drivable or autonomous robotic navigation
- Devolved from UA assets w/ MULE variants

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ABN Bn676	76	17		509
Lt Inf Bn572	45	6		260

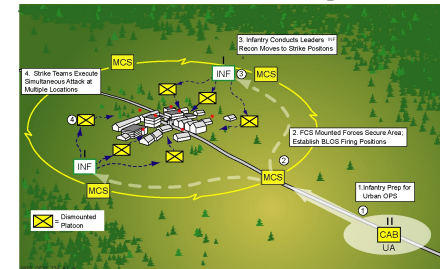
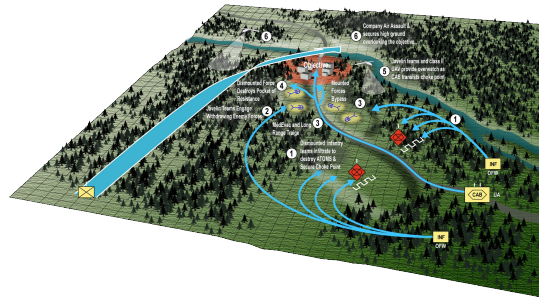


OFW Support to FCS UA Operational Modes



Mounted

- Conduct enroute P&R
- Fully UH-60 transportable lethality packages
- Maintain SA and readiness
- Operational maneuver capability



Mounted s/b Dismounted

- Clear threat areas
- Overwatch close terrain
- Rapidly mount/dismount



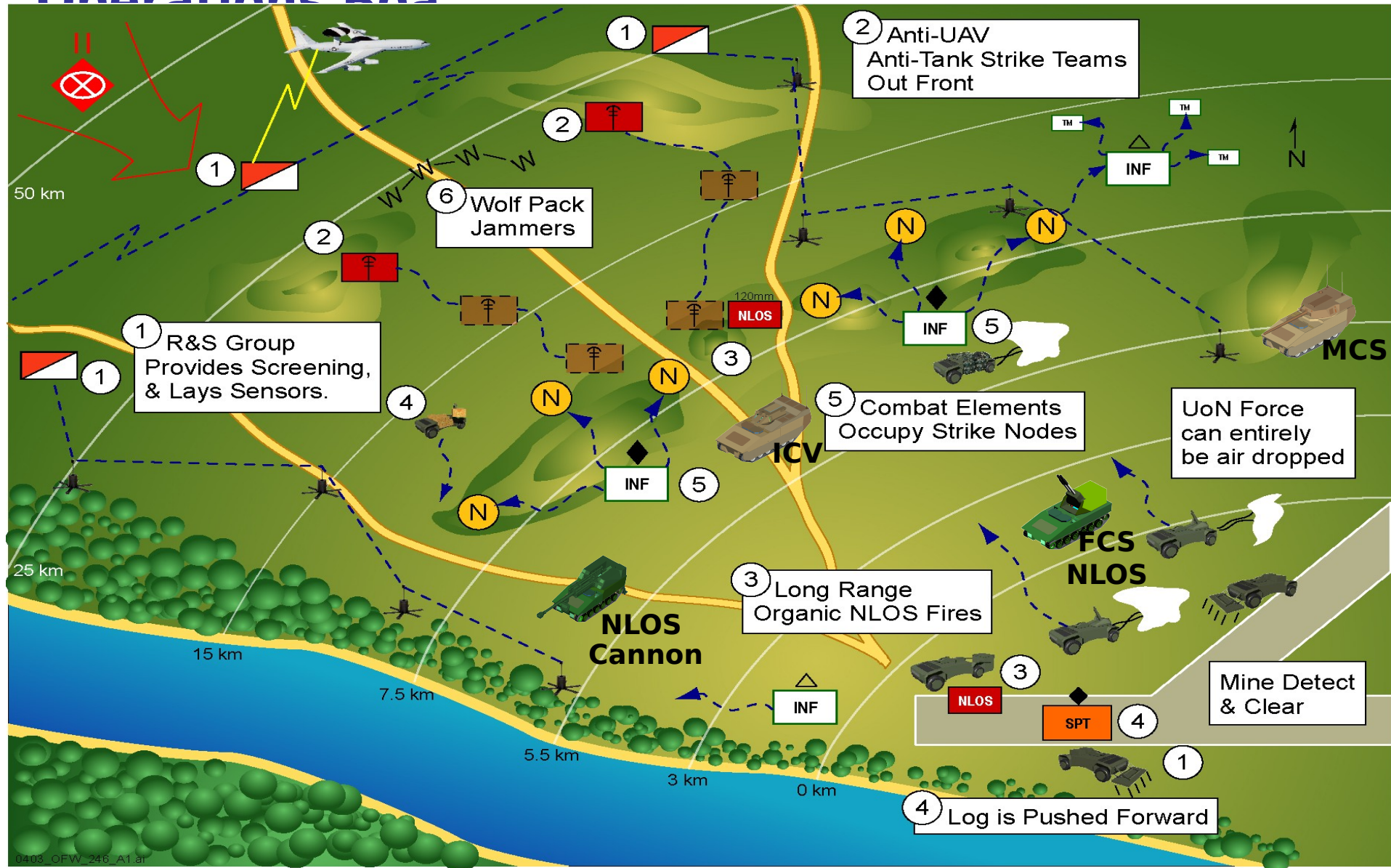
Dismounted

- Operate in close, complex terrain
- Operate in multiple environment

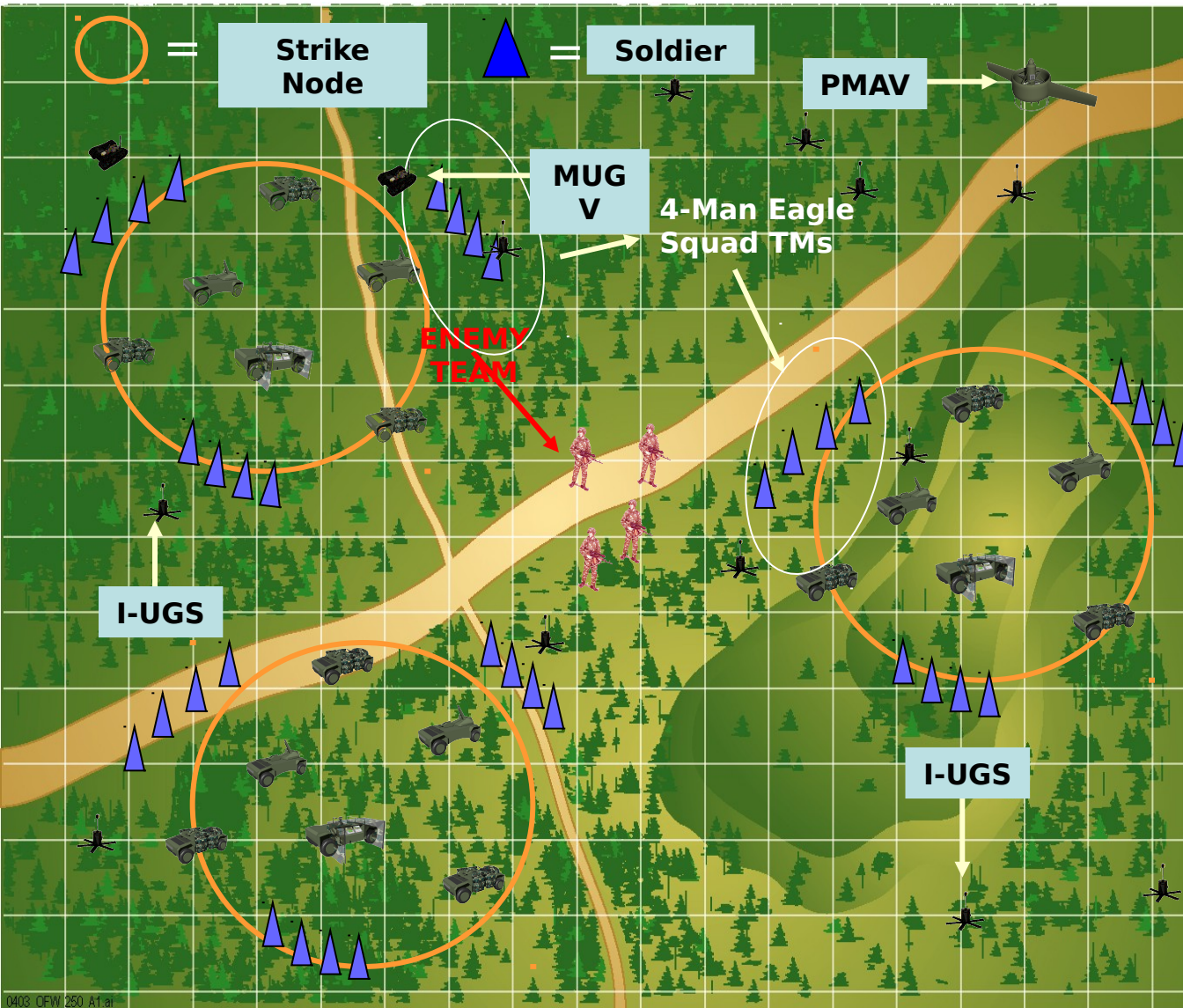
Dismounted s/b Mounted

- Operate in restricted terrain
- Gives UA distributed comms, sensor network

Mounted s/b Dismounted: Pulsed Strike Operations Box

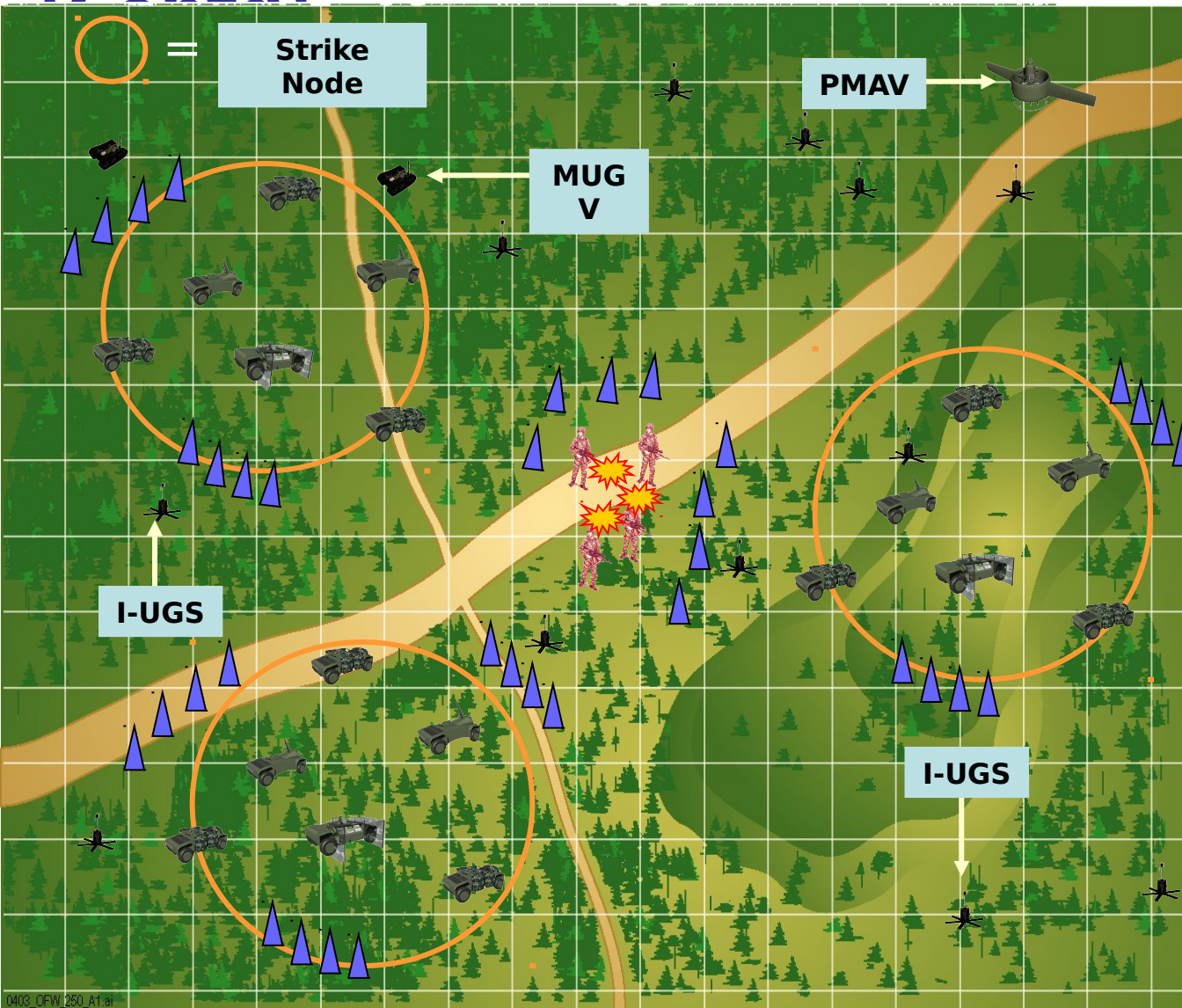


Dismounted Operations - PSO Cobra



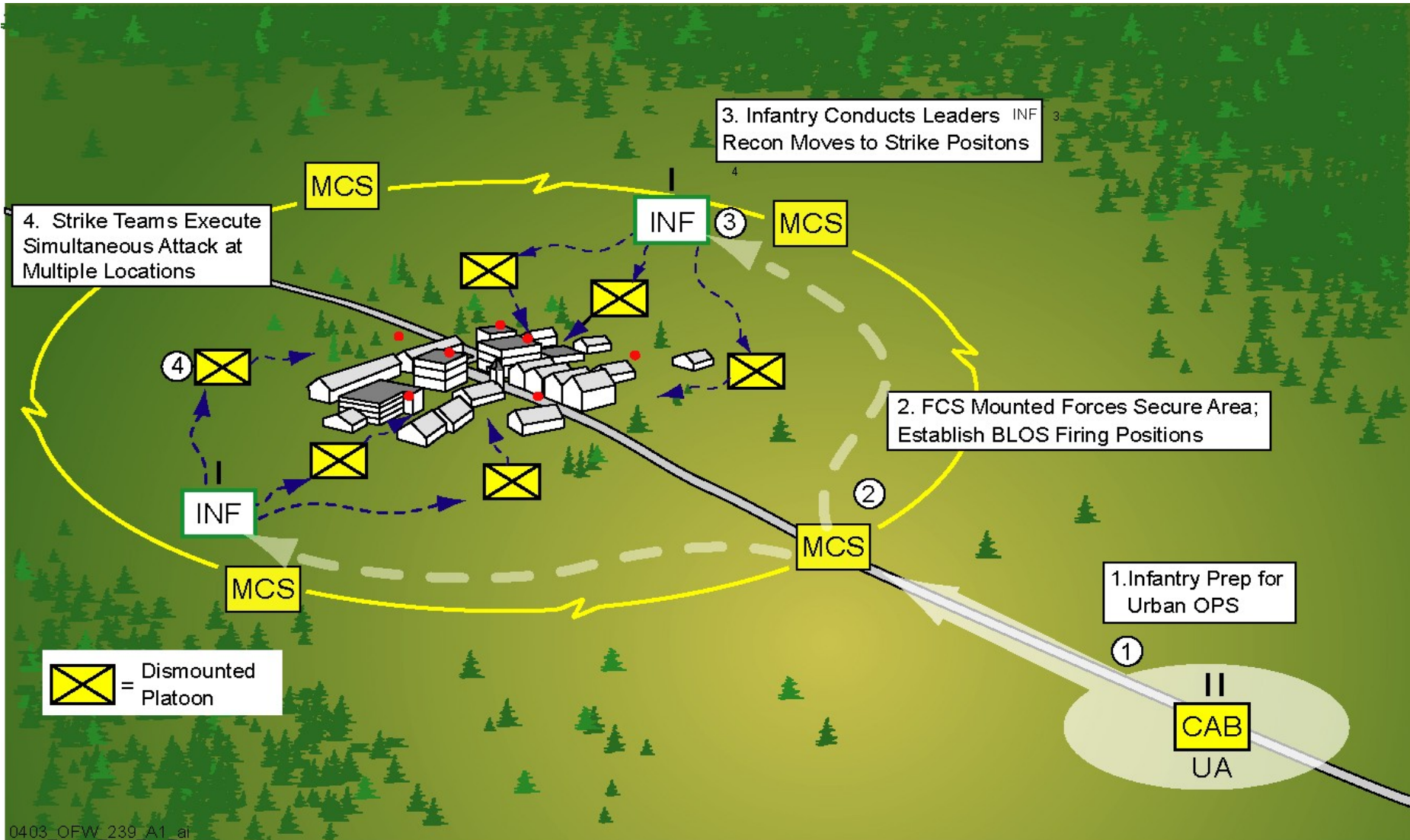
- **Combat Group NC/CSA select Nodes**
- **Elements move into position and employ additional sensors**
- **Threat found, warning order issued, optimal Task Order identified for mission**
- **Teams notified, begin to virtually rehearse ambush**

Dismounted Operations - PSO Cobra



- Combat Group NC/CSA select Nodes
- Elements move into position and employ additional sensors
- Threat found, warning order issued, optimal Task Org identified for mission
- Teams notified, begin to virtually reassemble to strike location; C2 and comms established
- Participants link and validate 3D SA and CID issues
- Optimal ambush method employed

Dismounted s/b Mounted - PSO Viper



Key Operational Mission Needs



Purpose of Objective Force Warrior (OFW)

- To develop a soldier systems of systems that provides all combat soldiers with superior capabilities to accomplish assigned tasks, conduct missions, and win decisively against all opponents.
- To enable soldiers to conduct dismounted maneuver with load bearing equipment and load not to exceed **40 pounds** over the course of a 24-hour mission, and must be sustainable with the Unit of Action (UA), which has a requirement to operate for 72 hours without re-supply.
- Equip all UA soldiers with OFW I and II (Land Warrior Block III and IV) systems.
- Develop variants of OFW that balance modularity with multi-functional integration that provide tailored and effective warrior capabilities for the various battlefield warrior functions with the UA.

Objective Force Warrior -

Phase III

Phase III - Demonstration Build, Training, and Demonstration (DTD)

Phase III Duration - 16 Months

- **Fabricate 50 demonstration prototype systems** with a TRL of 6/7 (depending on final funding levels)
- Train demonstration unit personnel
- Train Government trainer personnel
- Verify system component and subsystem operation and interoperability
- The Army will perform experimentation with Lead Technology Integrator (LTI) support utilizing evaluation criteria developed during Phase I
- OFW system of systems tactical level experiments will be conducted by the Government in realistic operational environments, and will include, if available, evaluation with other Objective Force platforms such as the FCS and Comanche.

